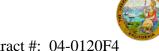
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-026193 Address: 333 Burma Road **Date Inspected:** 26-Aug-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: John Pagliero **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A Yes **Qualified Welders:** Yes No **Verified Joint Fit-up:** No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: SAS** Tower

Summary of Items Observed:

At the start of the shift the Quality Assurance Inspector (QAI) traveled to the project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) personnel. The inspection was performed on the various field fit-up of the weld joints and the Complete Joint Penetration (CJP). The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process.

A). Tower Shear Plates

The QAI observed the continued welding of the Visual Testing (VT) repair performed by Richard Garica ID-5892 on the joint designated as "R" and identified as WN: E-041. The welding was performed utilizing the SMAW process and the 3.2 E7018-H4R electrode as per the WPS ABF-WPS-D15-1000 Repair, Rev. 2 and was performed in the vertical (3G) position with the work placed in an approximately vertical plane with the groove approximately vertical. The welding parameters were observed and noted as 134 amps, minimum preheat temperature of 204 degrees Celsius and the maximum interpass temperature of 230 degrees Celsius. These values appeared to comply with the contract specifications. The location of the repair welding was at the Y cordinate dimension of 2370 mm. The QC inspection was performed by John Pagliero utilizing the WPS as a reference to monitor the welding, verify the welding parameters and the related work in regards to this operation. The welding was not completed during this shift.

B). Document Control Review

This QA Inspector performed a daily review of field inspection reports and update of the field document control

WELDING INSPECTION REPORT

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tracking records regarding the Orthotropic Box Girders (OBG, Longitudinal and Transverse "A" Deck Stiffeners, Deck Access Holes and the Tower Shear plates. The QAI also updated the tracking records for the pipe welds and the pipe supports.

On this date the QAI commenced the final review of the inspection reports, tracking documentation for the OBG's E1, E2, E3 and E4.

QA Summary

The welding was performed in the vertical position utilizing the E7018-H4R. The 3.2 mm H4R electrodes were stored in a electrically heated, thermostatically controlled oven after the removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. The welding parameters and surface temperatures were verified by the QC inspector's utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempil Heat Indicators for verifying the preheat and interpass temperatures. At the time of the observation no issues were noted by the QAI.

Summary of Conversations:

There were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection and N.D.E. testing personnel scheduled for this shift.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Reyes, Danny	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer